What is Claimed Is:

1. A rod connector assembly, the rod connector assembly comprising:

a first rod adapter having an undercut adjacent to a first shaped mating element;

a second rod adapter having an undercut adjacent to a second shaped mating element; and

a rod union for enclosing and mating the first and second mating surfaces of the first and second rod adapters at the undercuts, the rod union having a shaped internal cavity for mateably receiving and retaining the first and second mating elements and preventing rotation of the first and second rod adapters.

2. The rod connector assembly according to claim 1, wherein the shaped internal cavity is large enough to accommodate axial misalignment of the first and second rods.

3. The rod connector assembly according to claim 1, wherein the undercut of the first rod adapter has an acute angle with respect to the first mating element to create wedging effect when the rod union encloses the first and second mating surfaces.

4. The rod connector assembly according to claim 1, wherein the second rod adapter includes the threaded portion therethrough wherein the adjustment of the second rod adapter on a second rod permits a predetermined length of the second rod to protrude through the second rod adapter.

5. The rod connector assembly according to claim 4, wherein the first rod adapter further comprises a second internal cavity formed for receiving at least a portion of the second rod.

6. The rod connector assembly according to claim 5, wherein the first rod adapter is comprised of an actuator rod.

7. The rod connector assembly according to claim 5, wherein the first rod adapter further includes an actuator rod and an actuator rod adapter, the actuator rod adapter having a means for attaching to the actuator rod, the actuator rod adapter also having the undercut between an end surface of the actuator rod adapter and the actuator rod that is substantially parallel to the longitudinal axis defined by the actuator rod, the actuator rod adapter further having the second internal cavity formed for receiving at least a portion of the second rod.

8. The rod connector assembly according to claim 7, wherein the second rod is a valve stem.

9. The first rod adapter according to claim 7, wherein the means for attaching the actuator rod adapter to the actuator rod comprises a threaded portion for adjustably threading the actuator rod adapter on a threaded end of the actuator rod and a nut fastened against the actuator rod adapter on the threaded end for securing the actuator rod adapter on the actuator rod.

10. The rod connector assembly according to claim 5, wherein the second internal cavity diameter is greater than the second rod diameter to accommodate axial misalignment between the first rod adapter and the second rod adapter.

11. The rod connector assembly according to claim 3, wherein the shaped internal cavity of the rod union includes a tapered surface wherein a line of contact is formed between the undercut and the tapered surface at a first angle greater than 40 degrees with respect to the end surface of the first rod adapter.

12. The rod connector assembly according to claim 11, wherein the rod union tapered surface is tapered at an angle equal to or greater than the first angle by no more than 5 degrees.

13. The rod connector assembly according to claim 11, wherein the line of contact is formed on a substantially spherical surface having a radius.

14. The rod union according to claim 1, wherein the rod union includes an upper and lower thrust surface approximately perpendicular to the longitudinal axis of the first rod adapter.

15. The rod union according to claim 1, wherein the shaped internal cavity of the rod union is polygonally shaped and the first and second mating elements of the first and second rod adapters comprise polygonally shaped flanges that are mateably received within the polygonally shaped internal cavity of the rod union.

16. The rod connector assembly according to claim 15, wherein the undercut of the first rod adapter has an acute angle with respect to the first mating element to create wedging effect when the rod union encloses the first and second mating surfaces.

17. A valve stem connector assembly, the valve stem connector assembly comprising:

an actuator rod assembly, the actuator rod assembly having a substantially planar end surface generally perpendicular to a longitudinal axis defined by the actuator rod, the actuator rod assembly also having an undercut adjacent to the end surface to provide a first slanted mating surface positioned at an acute angle with respect to the end surface and that terminates at a first polygonally shaped flange disposed between the slanted mating surface and the end surface;

a valve stem assembly, the valve stem assembly being comprised of a valve stem and a valve stem adapter, the valve stem adapter having a means for attaching to the valve stem, the valve stem adapter further having a substantially planar end surface generally perpendicular to a longitudinal axis defined by the valve stem, the valve stem adapter also having an undercut adjacent to the end surface to provide a second polygonally shaped flange surface;

a stem union for enclosing the first rod assembly and the second rod assembly, the stem union comprising two generally equal halves providing a first polygonally shaped internal cavity having a first diameter, the first internal cavity further including two openings having a second diameter wherein the second diameter is less than the first diameter to provide a first flange and a second flange for receiving the first and second polygonally shaped mating flanges of the actuator rod assembly and valve stem adapters; and

an attachment means for joining the two halves of the stem union to mechanically couple the actuator assembly to the valve stem assembly wherein the end surface of the actuator assembly and the end surface of the valve stem assembly are placed in substantially planar contact.

18. The actuator rod assembly according to claim 17, wherein the actuator rod assembly is comprised of an actuator rod and an actuator rod adapter, the actuator rod adapter having a means for attaching to the actuator rod, the actuator rod adapter further having the undercut for creating the first slanted mating surface and first polygonally shaped flange, the actuator rod adapter further including a second internal cavity formed for receiving at least a portion of the valve stem.

19. The actuator rod assembly according to claim 18, wherein the second internal cavity diameter is greater than the valve stem diameter to accommodate axial misalignment between the actuator rod assembly and the valve stem assembly.

20. The actuator rod assembly according to claim 17, wherein the actuator rod assembly is comprised of an actuator rod, the actuator rod further including a second internal cavity formed for receiving at least a portion of the valve stem.

21. The actuator rod assembly according to claim 20, wherein the second internal cavity diameter is greater than the valve stem diameter to accommodate axial misalignment between the actuator rod assembly and the valve stem rod assembly.

22. The stem union according to claim 17, wherein the first diameter is greater than the diameter of the first and second mating surfaces to accommodate axial misalignment between the actuator rod assembly and the valve stem rod assembly.

23. A method for reducing the friction between a valve stem assembly and a valve packing set created by the axial misalignment of an actuator rod assembly and the valve stem assembly, the method comprising the steps of:

fabricating an actuator rod assembly to have a substantially planar end surface generally perpendicular to a longitudinal axis defined by the actuator rod, the actuator rod assembly also having an undercut adjacent with a first polygonally shaped mating surface positioned between the undercut and the end surface;

attaching a valve stem adapter to a valve stem, the valve stem adapter having a substantially planar end surface generally perpendicular to a longitudinal axis defined by the valve stem, the valve stem adapter also having an undercut adjacent to the end surface with a second polygonally shaped flange positioned between the undercut and the end surface;

fashioning a stem union comprised of two generally equal halves containing a first polygonally shaped internal cavity to provide corresponding mating surfaces for the first mating surface of the actuator rod assembly and the second mating surface of the valve stem adapter wherein the first polygonally shaped internal cavity is arranged to receive the first polygonally shaped flange of the actuator rod assembly and the second polygonally shaped flange of the valve stem adapter, the first polygonally shaped cavity having sufficient dimensions to accommodate substantial axial misalignment of the actuator rod assembly and the valve stem; and

fastening the stem union about the actuator assembly and the valve stem adapter wherein the end surface of the actuator assembly and the end surface of the valve stem adapter are placed in substantially planar contact.

24. The method according to claim 23, wherein fabricating the actuator rod assembly includes fashioning an undercut into the actuator rod that is substantially parallel to the longitudinal axis defined by the actuator rod and adjacent to the substantially planar end surface of the actuator rod.

25. The method according to claim 24, wherein fabricating the actuator rod assembly includes providing a second internal cavity for receiving at least a portion of the valve stem, the second internal cavity having a diameter greater than the diameter of the valve stem.

26. The method according to claim 23, wherein arranging the actuator rod assembly includes attaching an actuator rod adapter to an actuator rod, the actuator rod adapter also having the undercut for creating the first mating surface that is substantially parallel to the longitudinal axis defined by the actuator rod, the actuator rod adapter further having the second internal cavity formed for receiving at least a portion of the valve stem.

27. The actuator rod assembly of claim 26, wherein attaching the actuator rod adapter to an actuator rod comprises providing an internal threaded portion within the actuator rod adapter for adjustably threading the actuator rod adapter on a threaded end of the actuator rod and a nut fastened against the actuator rod adapter on the threaded end for securing the actuator rod adapter on the actuator rod.

28. The method according to claim 23, wherein attaching the valve stem adapter to the valve stem comprises providing a threaded portion within the valve stem adapter for adjustably threading the valve stem adapter on a threaded end of the valve stem and a nut fastened against the valve stem adapter on the threaded end for securing the valve stem adapter on the valve stem.

29. A control valve assembly, comprised of:

a valve, the valve having a valve body including a fluid inlet and a fluid outlet, the fluid inlet and fluid outlet being connected by a fluid passageway;

a moveable operator contained within the valve body to control the fluid flow through the fluid passageway, the moveable operator including an operator stem assembly protruding from the valve body;

an actuation means directly attached to the valve body to provide motive force to the moveable operator, the actuation means including an actuator rod assembly; and

a rod connector assembly to axially connect the operator stem assembly to the actuator rod assembly wherein the operator stem assembly includes an adjustable adapter attached the operator stem assembly to accommodate variable operator stem assembly length, the adjustable adapter further having a first polygonally shaped flange, the actuator rod assembly having a second polygonally shaped flange including a first internal cavity to accept a portion of the operator stem, and a union with a second polygonally shaped internal cavity to correspondingly engage the first and second polygonally shaped flanges wherein the first internal cavity of the actuator rod assembly and the second polygonally shaped internal cavity of the union provide clearance spacing to accommodate axial misalignment of the operator stem assembly and the actuator rod assembly.